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**Notice of Allowability**

Application No.

10/680,122

Applicant(s)

PAROLARI, SERGIO

Examiner

Juan A. Torres

Art Unit

2611

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment - After Non-Final Rejection filed on 02/13/2007.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Drawings***

The modifications to the drawings were received on 02/13/2007. These modifications are accepted by the Examiner.

In view of the amendment filed on 02/13/2007, the Examiner withdraws drawings objections of the previous Office action.

### ***Specification***

The modifications to the specification were received on 02/13/2007. These modifications are accepted by the Examiner.

In view of the amendment filed on 02/13/2007, the Examiner withdraws Specification objections of the previous Office action.

### ***Claim Objections***

The modifications to the claims were received on 02/13/2007. These modifications are accepted by the Examiner.

In view of the amendment filed on 02/13/2007, the Examiner withdraws claims objections to claims 8 and 141-7 of the previous Office action.

## **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel J. Staudt on 3/6/2007.

The application has been amended as follows:

- a) the recitation in line 9 of claim 2 "scheme;" is changed to "scheme; and";
- b) the recitation in line 1 of claim 14 "the method according to claim 10" is changed to "the method according to claim 13"; and
- c) the recitation in line 1 of claim 19 "the method according to claim 10" is changed to "the method according to claim 13".

***Allowable Subject Matter***

Claims 1-23 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: claims 1-23 are allowed because the references cited fail to teach, as applicant has, a method for dynamically optimizing data throughput at radio interfaces of a packet data cellular network, the interfaces comprising one or more types of modulations having different immunity from transmission errors when used for transmitting bursts of data, said data being packed-up in blocks between mobile stations and serving base station and vice versa, comprising the steps of obtaining for each available modulation at least one of an upgrade and a downgrade tabulated threshold of the Block Error Rate delimiting a range in which the available modulation outperforms other available modulations in terms of net data throughput; averaging, and comparing the Block Error Rate, substantially continuously, of the relevant temporary connection with the tabulated thresholds for selecting the proper modulation; combining each available modulation

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with two or more coding schemes thereby obtaining many modulation-and-coding schemes with different protection against transmission errors; obtaining for each modulation and coding scheme at least one of a first upgrade and a first downgrade tabulated Block Error Rate threshold which is valid for low-diversity radio frequency channels, delimiting a range in which the modulation and coding scheme outperforms the other available modulation and coding schemes in terms of net data throughput, and Considering as low-diversity a channel without frequency hopping and with low user mobility; obtaining for each modulation and coding scheme at least one of a second upgrade and a second downgrade tabulated Block Error Rate threshold which is valid for high-diversity radio frequency channels, delimiting a range in which the modulation and coding scheme outperforms the other available modulation and coding schemes in terms of net data throughput, and considering as high-diversity a channel characterized by frequency hopping or high user mobility; selecting either the first or the second tabulated thresholds according to diversity of the radio frequency channel which sustains a temporary connection; and using the selected thresholds for discriminating a right modulation and coding scheme, as the applicant has claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Juan Alberto Torres  
03-06-2007

  
TEMESGHEN GEBREHETINSAE  
PRIMARY EXAMINER